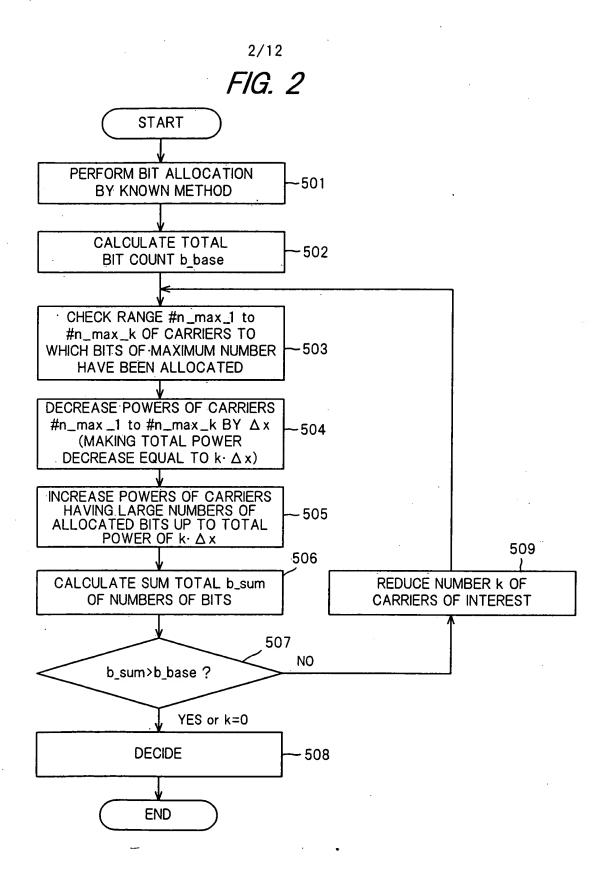


ļ. **.**



 $\boldsymbol{f_{d}}$

#1

 $2f_{\rm d}$

#2

 $3f_{d}$

#3

 $4f_{\rm d}$

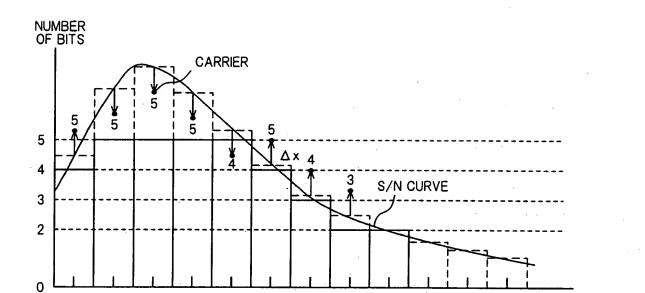
 $5f_d$

#5

 $6f_d$

#6

3/12 *FIG. 3*



 $7f_d$

#7

.8f_d

#8

 $9f_d$

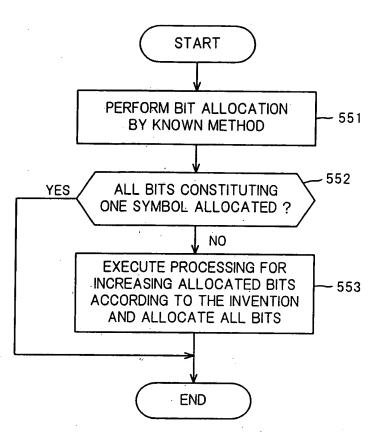
10f_d 11f_d 12f_d FREQUENCY

#10 #11 #12 CARRIER NO.

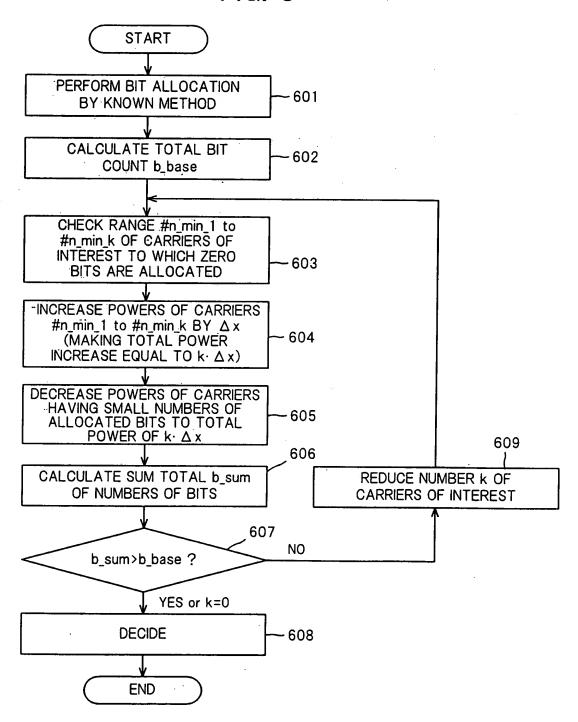
FIG. 4

NO.	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
BITS	5	5	5	5	4	5	4	3	2	0	0	0	38
ADDITIONAL GAIN	+ Δ x	-Δx	- ∆ x	-Δx	- ∆ x	+Δx	+ Δ x	+∆x	0	0	0	0	0

FIG. 5



5/12 **FIG. 6**



6/12 **FIG. 7**

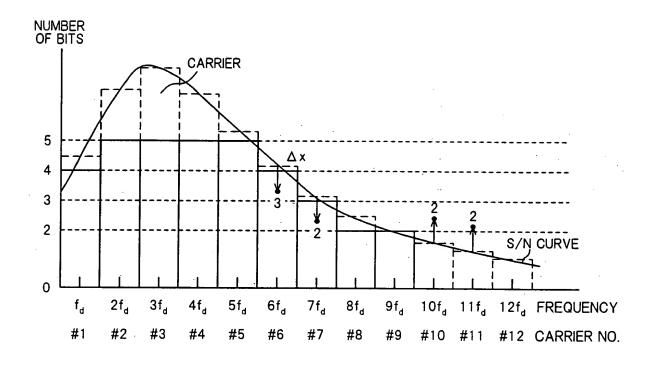
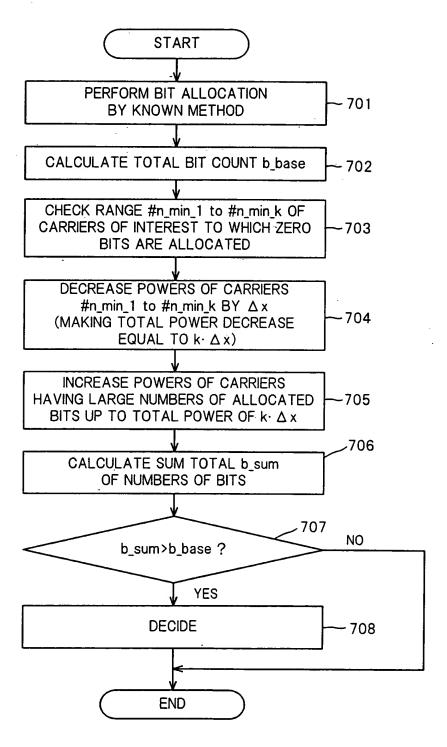


FIG. 8

NO.	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
BITS	4	5	5	5	5	3	2	2	2	2	2	0	37
ADDITIONAL GAIN	0	0	0	0	0	- ∆ x	-∆x	0	0	+ ∆ x	+ ∆ x	0	0

7/12 **FIG. 9**



8/12 *FIG. 10*

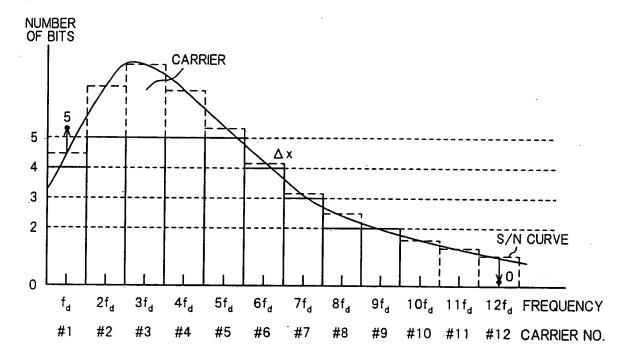


FIG. 11

NO.	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
BITS	5	5	5	5	5	4	3	2	2	0	0	0	36
ADDITIONAL GAIN	+ ∆ x	0	0	0	0	0	0	0	0	0	0	-∆x	0

9/12 FIG. 12 PRIOR ART

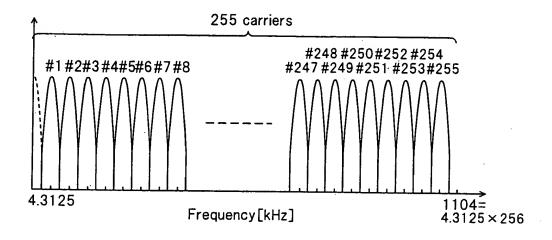
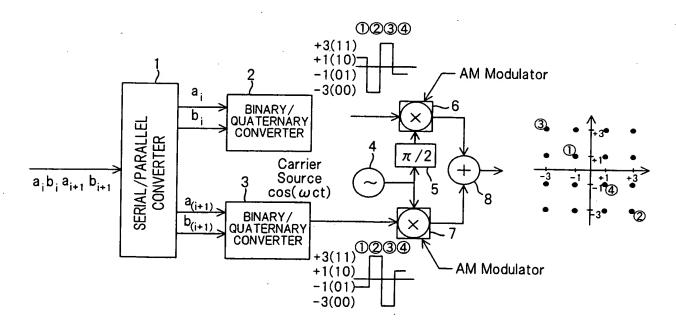


FIG. 13 PRIOR ART



10/12 FIG. 14 PRIOR ART

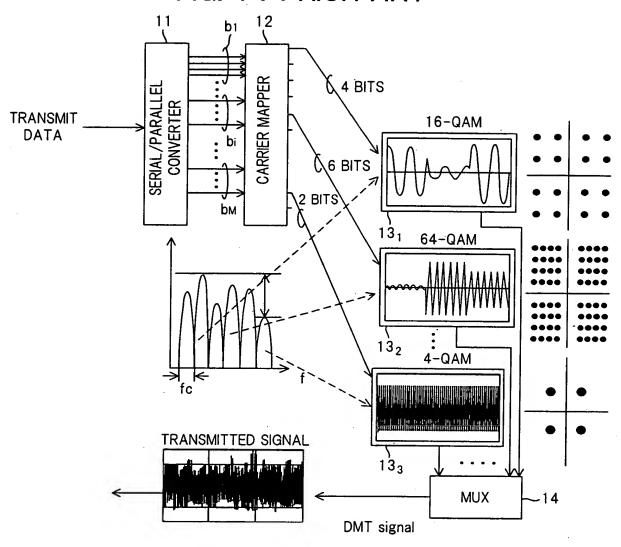


FIG. 16 PRIOR ART

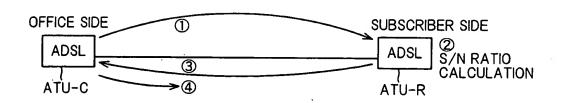
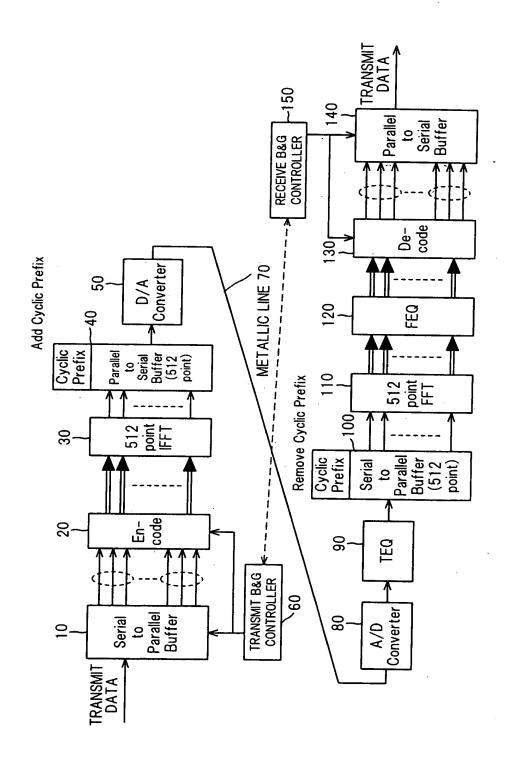


FIG. 15 PRIOR ART



12/12 FIG. 17 PRIOR ART

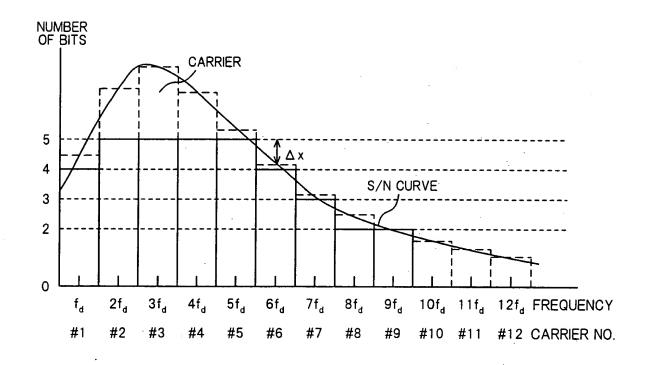


FIG. 18 PRIOR ART

NUMBERS OF BITS ALLOCATED BY BIT ALLOCATION BASED UPON KNOWN METHOD

CARRIER NO.	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
BITS	4	5	5	5	5	4	3	2	2	0	0	0	35